December 13, 2002

Re: Challenge Door of Indiana 113-16069-00047

TO: Interested Parties / Applicant

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for consideration at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure

December 13, 2002

Bill O'Dell
Challenge Door of Indiana
P.O. Box 259
Ligonier, Indiana 46767

Re: 113-16069-00047
First Minor Revision to
FESOP 113-10260-00047

Dear Mr. O'Dell:

Challenge Door of Indiana was issued a permit on May 15, 2002 for a door manufacturing operation. A letter requesting changes to this permit was received on September 10, 2002. Pursuant to the provisions of 326 IAC 2-8-11.1, a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document.

Challenge Door of Indiana has proposed the construction and operation of a fiberglass door manufacturing process.

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Please attach a copy of this modification and the following revised permit pages to the front of the original permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Scott Fulton, OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, or call at (800) 451-6027, press 0 and ask for Scott Fulton or extension (3-5691), or dial (317) 233-5691.

Sincerely,

Original signed by Paul Dubenetzky
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

Attachments
SDF
cc: File - Noble County
U.S. EPA, Region V
Noble County Health Department
Northern Regional Office
Air Compliance Section Inspector - Doyle Houser
Compliance Data Section - Karen Nowak
Administrative and Development
Technical Support and Modeling - Michele Boner

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OFFICE OF AIR QUALITY

Challenge Door of Indiana
200 Gerber Street
Ligonier, Indiana 46767

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F113-10260-00047	Date Issued: May 15, 2002

First Administrative Amendment No.: F113-15891-00047	Date Issued: May 28, 2002

First Minor Permit Revision No.: 113-16069-00047	Affected Pages: 4, 5, 7, with 7a, 37a, 37b, 37c, 37d and 43a added.
Issued by: Original Signed by Paul Dubenetzky Paul Dubenetzky, Branch Chief Office of Air Quality	Date Issued: December 13, 2002

SECTION D.3 FACILITY OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.1 New Facilities, General Reduction Requirements [326 IAC 8-1-6]
D.3.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

D.3.3 Testing Requirements
D.3.4 VOC Emissions

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.3.5 Volatile Organic Compound Control
D.3.6 Compliance Schedule

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.3.7 Parametric Monitoring

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.8 Record Keeping Requirements
D.3.9 Reporting Requirements

SECTION D.4 FACILITY OPERATION CONDITIONS

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.4.1 Volatile Organic Compound (VOC) Usage Limit, Glaze Application Area [326 IAC 2-7]
D.4.2 Particulate Matter (PM), Door Groove Forming System [326 IAC 6-3-2(e)]
D.4.3 Particulate Matter (PM), Woodworking Process [326 IAC 6-3-2(e)]
D.4.4 VOC Content Limit, Door Adhesive Roll Coating Application System [326 IAC 8-2-9]
D.4.5 Woodworking Process Emission Control Operating Requirement
D.4.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

D.4.7 Compliance Determination, Volatile Organic Compounds (VOC)
D.4.8 Testing Requirements

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.4.9 Visible Emissions Notations, Woodworking Process
D.4.10 Parametric Monitoring
D.4.11 Monitoring Requirements, VOC Emission Limit

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.4.12 Record Keeping Requirements
D.4.13 Reporting Requirements

Certification Form
Emergency Occurrence Form
Monthly Report Form
Quarterly Deviation and Compliance Monitoring Report Form
Quarterly Report Form

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates an insulated fiberglass and steel door manufacturing facility.

Authorized individual:	Bill O'Dell, General Manager
Source Address:	200 Gerber Street, Ligonier, Indiana 46767
Mailing Address:	P.O. Box 259, Ligonier, Indiana 46767
SIC Code:	3086, 3442
Source Location Status:	Noble
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD or Emission Offset Rules; Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) surface coating emission unit, identified as P001, consisting of the following:

(1) One (1) surface coating spray booth, identified as Door Edge Paint Booth, utilizing a HVLP spray application system, coating a maximum of 175 door edges per hour, using dry filters for particulate matter control, and exhausting to one (1) stack, identified as E1;

(2) One (1) surface coating touch-up spray booth, identified as Door Touch-up Booth, utilizing an air atomized spray application system, coating a maximum of 175 door edges per hour, using dry filters for particulate matter control, and exhausting to one (1) stack, identified as E2;

(b) One (1) emission unit, identified as P002, utilizing a solvent based cleaning solution to hand wipe a maximum of 175 door per hour and exhausting to general ventilation;

(c) One (1) roll coating emission unit, identified as P003, consisting of the following:

(1) Two (2) roll coating operations, identified as Adhesive Roll Coater 1 and Adhesive Roll Coater 2, coating a maximum of 175 doors per hour on a daily average, and exhausting to two (2) stacks, identified as E3 and E4, utilizing solvent for roller cleaning;

(d) One (1) core burning emission unit, identified as P004, consisting of the following:

(6) One (1) regenerative thermal oxidizer, equipped with a burner rated at 7.2 million British thermal units per hour, using a mixture of pentane-laden process and ventilation air and natural gas as combustion fuel.

(The BOSS and the one (1) regenerative thermal oxidizer are in parallel with one another, each controlling part of the process air and ventilation air from the permanent total enclosures).

(g) One (1) fiberglass door assembly operation, with a maximum design production rate of 175 doors per hour, including:

(1) One (1) fiberglass door groove forming system, identified as P008, forming grooves in the door cores via heat,

(2) The door adhesive roll coating application system identified in Part (c) of this condition,

(3) One (1) glaze application area, identified as P007, applying glaze to the door fiberglass skin, and

(4) The woodworking process identified in Part (e) of this condition.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour;

(b) Closed loop heating and cooling systems;

(c) Noncontact cooling tower systems with either of the following:

(1) Forced and induced draft cooling tower system not regulated under a NESHAP;

(d) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;

(e) Paved or unpaved roads and parking lots with public access;

(f) Conveyors as follows:

(a) Enclosed systems for conveying plastic raw materials and plastic finished goods;

(g) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations;

(h) Other activities or categories not previously identified:

(1) Two (2) industrial shop vacuums; Potential PM emissions are estimated at 0.48 lb/hr or 2.1 tons per year;

(2) Maintenance/cleaning/repair chemical use (general venting); Maximum potential VOCs for products identified below is 0.14 tons per year. Products: Lucite acrylic lacquer, lacquer thinners and cleaning solvents (maintenance use), butylgrip sealant, X-433 aerosol, strippable wall coating, Mautz industrial enamel, rigid dark thread cutting oil, and WD-40 bulk liquid, etc;

(3) Coiled sheet metal cold stamping, punching, bending, and forming operations using non-volatile oil based lubricants; and

(4) Polystyrene Scrap Grinding in an enclosed grinder.

(5) One Torit dust collector for collection of fiberglass skin door residuals.

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

One (1) fiberglass door assembly operation, with a maximum design production rate of 175 doors per hour, including:

(a) One (1) fiberglass door groove forming system, identified as P008, forming grooves in the door cores via heat,

(b) The door adhesive roll coating application system identified in Part (c) of Condition A.2,

(c) One (1) glaze application area, identified as P007, applying glaze to the door fiberglass skin, and

(d) The woodworking process identified in Part (e) of Condition A.2.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.4.1 Volatile Organic Compound (VOC) Usage Limit, Glaze Application Area [326 IAC 2-7]

The owner or operator shall limit the input VOC from the glaze application area to 15.75 tons per year per twelve (12)consecutive month period with compliance being determined at the end of each month. Compliance with this limit shall render the requirements of 326 IAC 2-7 not applicable in this case.

D.4.2 Particulate Matter (PM), Door Groove Forming System [326 IAC 6-3-2(e)]

The owner or operator shall limit the particulate matter (PM) from the door groove forming system to 1.71 lb/hr or less.

D.4.3 Particulate Matter (PM), Woodworking Process [326 IAC 6-3-2(e)]

The owner or operator shall limit the particulate matter (PM) from the woodworking process (P005) to 7.85 pounds per hour or less.

D.4.4 VOC Content Limit, Door Adhesive Roll Coating Application System [326 IAC 8-2-9]

(a) The owner or operator shall limit the volatile organic compound (VOC) content of coatings applied to metal door frames in P003 shall to 3.0 pounds of VOC per gallon of coating less water delivered to the applicator for all other coatings and coating application systems.

(b) Solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.4.5 Woodworking Process Emission Control Operating Requirement

In order to comply with Condition D.4.3, the baghouse for PM control shall be in operation at all times that the woodworking operation (P005) is in operation.

D.4.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for the emissions units and their control devices.

Compliance Determination Requirements

D.4.7 Compliance Determination, Volatile Organic Compounds (VOC)

To determine compliance with the VOC limit of Condition D.4.1, the owner or operator shall on a monthly basis:

(a) draft a list of all coatings, additives, and solvents used at the glaze application area that contain VOCs;

(b) determine the following form each coating, additive, and solvent listed in Part (a) of this Condition based on material properties and formulation data supplied by the coating manufacturer and the applicable material volatile organic compound usage for the most recent month:

(1) the amount and VOC content,
(2) a log of the dates of use, and
(3) the VOC emissions;

(c) the sum total coating, additive, and solvent VOC emissions;

(d) the sum total VOC emissions from the previous 11 months; and

(e) the 12 month rolling total VOC emissions.

The IDEM, OAQ, reserves the authority to require compliance determination using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4 and material volatile organic compound usage.

D.4.8 Testing Requirements

The owner or operator is not required to test any units listed in this section at this time. However, the IDEM, OAQ may require compliance testing at any specific time when deemed necessary to determine if the units listed in this section are in compliance with the limits and standards of Conditions D.4.1, D.4.2, and D.4.3. Said testing shall be determined by performance test(s) conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.4.9 Visible Emissions Notations, Woodworking Process

(a) Daily visible emission notations of the woodworking process stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.4.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the woodworking process, at least once weekly when the woodworking process is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 0.0 and 2.5 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.4.11 Monitoring Requirements, VOC Emission Limit

To demonstrate compliance with the VOC emission limit of Condition D.4.1, the owner or operator shall record the information determined in Condition D.4.7.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.4.12 Record Keeping Requirements

(a) To document compliance with the VOC limit of Condition D.4.1, the owner or operator shall maintain records of the information required in Condition D.4.11.

(b) To document compliance with the PM emission limit of Condition D.4.3, the owner or operator shall maintain records of:

(1) the daily visible emission notations required in Condition D.4.9, and
(2) the following operational parameters during normal operation when venting to the atmosphere:

(A) differential static pressure across the fabric as required in Condition D.4.10, and
(B) verification of cleaning cycle operation.

(c) To document compliance with the VOC content limit of Condition D.4.4, the owner or operator shall maintain records of the as applied VOC content of all coatings applied to metal door frames.

All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.13 Reporting Requirements

A quarterly summary of the information to document compliance with the VOC limit of Condition D.4.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

Quarterly Report

Source Name: Challenge Door of Indiana
Source Address: 200 Gerber Street, Ligonier, IN 46767
Mailing Address: P.O. Box 259, Ligonier, IN 46767
Permit No.: 113-16069-00047
Facility: Glaze Application Area
Parameter: VOC Emissions
Limit: Less than 15.75 Tons VOC/yr, based on a 12 month rolling total

Quarter: _____ **Year:** _____

Month	(1) Tons VOC This Month	(2) Tons VOC Past 11 Months	(1) + (2) Rolling Total VOC Emissions (Tons)

9 No deviation occurred in this month.

9 Deviation/s occurred in this month.
Deviation has been reported on: _____

Submitted by: _____

Title/Position: _____

Signature: _____
Date: _____

Phone: _____

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD)
for
a Minor Permit Revision to an Existing FESOP

Source Background and Description

Source Name:	Challenge Door of Indiana
Source Location:	200 Gerber Street, Ligonier, IN 46767
County:	Noble
SIC Code:	3086, 3442
FESOP No.:	113-10260-00047
Minor Permit Revision No.:	113-16069-00047
Permit Reviewer:	SDF

The Office of Air Quality (OAQ) has reviewed a Minor Permit Revision permit application from Challenge Door of Indiana, relating to the operation of their existing insulated steel door manufacturing operation.

Request

On September 10, 2002, Challenge Door of Indiana submitted a request to add a fiberglass door assembly operation to their existing source. The proposed fiberglass door assembly operation consists of the following new equipment and equipment that will be shared with the steel door assembly operation:

One (1) fiberglass door assembly operation, with a maximum design production rate of 175 doors per hour, including:

(a) One (1) fiberglass door groove forming system, identified as P008, forming grooves in the door cores via heat,

(b) One (1) existing door adhesive roll coating application system, identified as P003, permitted under F113-10260-00047, issued on May 15, 2002, applying adhesive to he door cores,

(c) One (1) glaze application area, identified as P007, applying glaze to the door fiberglass skin, and

(d) One (1) existing woodworking area, identified as P005 permitted under F113-10260-00047, issued on May 15, 2002, with particulate emissions controlled by one (1) dust collector, identified as DC7, with emissions exhausted through Stack DC7.

Existing Approvals

The source has been operating under FESOP 113-10260-00047, issued on May 15, 2002 and First Administrative Amendment 113-15891-00047, issued on May 28, 2002.

Recommendation

The staff recommends to the Commissioner that the Minor Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application.

Emission Calculations

The emissions generated by the equipment of the proposed modification are PM, PM10, VOC, and HAP emissions from the groove forming system, and VOC and HAP emissions from the glaze application system.

(1) Unrestricted Potential to Emit (UPTE):

The following calculations determine the UPTE due to the proposed modification.

(a) Groove Forming System UPTE:

(1) VOC:

The following calculations determine the groove forming system VOC emissions based on a maximum hourly VOC emission rate determined using independent test data based on the maximum design production rate, emissions before controls, and 8760 hours of operation.

0.16 lb VOC/hr * 8760 hr/yr * 1/2000 ton/lb = **0.70 tons VOC/yr**

(2) PM/PM10:

The following calculations determine the groove forming system PM emissions based on a maximum hourly PM emission rate determined using independent test data based on the maximum design production rate, emissions before controls, and 8760 hours of operation.

0.95 lb PM/hr * 8760 hr/yr * 1/2000 ton/lb = **4.16 tons PM/yr***

* PM10 is determined to be equal to PM in this case

(3) HAP Emissions:

The following calculations determine the groove forming system HAP emissions based on a maximum hourly HAP emission rate determined using independent test data based on the maximum production rate, emissions before controls, and 8760 hours of operation.

lb HAP/hr * 8760 hr/yr * 1/2000 tons/lb = tons HAP/yr

HAP	lb/hr	tons/yr
Styrene	0.0147	0.0644
Toluene	0.0005	0.0022
Acetophenone	0.0002	0.0009
Benzene	0.0002	0.0009
Ethyl Benzene	0.0001	0.0004
Phenol	neg.	neg.
Xylene	neg.	neg.
MEK	0.0020	0.0088
	Total	**0.0776**

(b) Door Lay-up System:

The door lay-up system is an existing system that was permitted under the original FESOP (113-10260-00047, issued May 15, 2002).

No modifications will be made to the door lay-up system, there will be no changes in the amount or type of adhesive applied to the doors, and there will not be an increase in the size or amount of doors processed.

The only change to the lay-up system as a result of the proposed modification will be the ability to process fiberglass doors or steel doors as opposed to processing only steel doors.

Based on the above information, it is determined that there will be no increase in the system unrestricted potential to emit (UPTE) due to the proposed modification. Thus, the lay-up system UPTE is not included as part of the modification UPTE.

(c) Glaze Application Area:

(1) VOC Emissions:

The following calculations determine the glaze application area emissions based on the worst case glaze, the material properties, 0.065 gallons per unit, a maximum production rate of 175 doors per hour, emissions before controls, and 8760 hours of operation.

8.5 lb/gal * 0.04 (fraction VOC) * 0.065 gal/unit * 175 units/hr * 8760 hr/yr * 1/2000 ton/lb = **16.94 tons VOC/yr**

(2) HAP Emissions:

The following calculations determine the glaze application area emissions based on the worst case glaze, the material properties, 0.065 gallons per unit, a maximum production rate of 175 doors per hour, emissions before controls, and 8760 hours of operation.

lb/gal * Fraction HAP * gal/unit * units/hr * 8760 hr/yr * 1/2000 ton/lb = tons HAP/yr

HAP	lb/gal	Fraction HAP	gal/unit	unit/hr	tons/yr
Methanol	8.5	0.0015	0.065	175	**0.63**
Xylene	8.5	0.0014	0.065	175	0.59
				Total	**1.22**

(3) PM/PM10 Emissions:

The glaze is applied utilizing a caulking gun which has a transfer efficiency of 100%. Therefore, there are no PM/PM10 emissions associated with the glazing application area.

(d) Woodworking Area:

No modifications will be made to the woodworking area and there will not be an increase in the size or amount of doors processed.

The only change to the woodworking area as a result of the proposed modification will be the ability to process fiberglass doors or steel doors as opposed to processing only steel doors.

Based on the above information, it is determined that there will be no increase in the system unrestricted potential to emit (UPTE) due to the proposed modification. Thus, the woodworking area is not included as part of the modification UPTE.

Emissions After Controls:

All applicable emissions are uncontrolled.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls due to the modification based on the above estimated emissions calculations. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	4.16
PM-10	4.16
SO_2	-
VOC	17.64
CO	-
NO_x	-

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAPs	Potential To Emit (tons/year)
Worst Case Single HAP	0.63
Combined HAPs	1.30

Since the VOC UPTE exceeds the low end applicable level of 10 tons per year, but are less than the upper applicable level of 25 tons per year, and no single and combined HAP UPTE exceeds the respective applicable levels of 10 and 25 tons per year, this source shall be permitted via a Minor Permit Revision pursuant to 326 IAC 2-8-11.1(d)(4)(D).

County Attainment Status

The source is located in Noble County.

Pollutant	Status
PM_{10}	attainment or unclassifiable
SO_2	attainment or unclassifiable
NO_2	attainment or unclassifiable
Ozone	attainment or unclassifiable
CO	attainment or unclassifiable
Lead	attainment or unclassifiable

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Noble County has been designated as attainment or unclassifiable for ozone. Therefore, the VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration, 326 IAC 2-2 and 40 CFR 52.21.

(b) Noble County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Source Emissions (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited), as obtained from the Technical Support Document (TSD) of FESOP 113-10260-00047, issued on May 15, 2002:

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Worst Case Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Source	15.53	15.69	0.02	2.93	82.55	2.47	6.42	6.68

PSD Major Levels	250	250	250	250	250	250	-	-
Part 70 Major Levels	-	100	100	100	100	100	10	10/25

(a) This source is not a major PSD stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more and it is not one of the 28 listed source categories.

(b) This source is not a Title V major stationary source because none of the criteria pollutants exceed the applicable level of 100 tons/yr and the single and combined HAP emissions do not exceed their respective applicable levels of 10 and 25 tons per year.

Modification Emissions

Emissions due to the modification based on the emissions after controls and 8760 hours of operation per year at rated capacity, but prior to implementation of any applicable limits or standards:

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Worst Case Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Modification	4.16	4.16	-	-	17.64	-	0.63	1.30
PSD Major Levels	250	250	250	250	250	250	-	-

This modification is not a major PSD modification because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more and it is not one of the 28 listed source categories.

Emissions After the Modification

(1) Emissions After Controls, Prior to Limits Established for the Modification:

The following table lists the source emissions after controls but prior to establishment of any limitations or standards.

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Worst Case Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Existing Source	15.53	15.69	0.02	2.93	82.55	2.47	**6.42**	6.68
Modification	4.16	4.16	-	-	17.64	-	0.63	1.30
Total	**19.69**	**19.85**	**0.02**	**2.93**	**100.19**	**2.47**	**-**	**7.98**

The source VOC emissions after the modification exceed 100 tons per year. Therefore, to avoid the Part 70 permit requirements, the equipment of the modification will be limited to the FESOP allowable rate (99 tons/yr) less the existing source allowable rate (82.55 tons/yr), or 16.45 tons VOC/yr.

99.00 tons/yr - 82.55 tons/yr = 16.45 tons VOC/yr

(2) Emissions After Controls, After Implementation of Modification Limits and Standards:

The following table lists the source emissions after controls, after establishment of a VOC emission limit required to avoid the Part 70 requirements.

Unit	PM (tons/yr)	PM10 (tons/yr)	SO2 (tons/yr)	NOx (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Worst Case Single HAP (tons/yr)	Comb. HAPs (tons/yr)
Existing Source	15.53	15.69	0.02	2.93	82.55	2.47	**6.42**	6.68
Modification	4.16	4.16	-	-	16.45*	-	0.59	1.21
Total	**19.69**	**19.85**	**0.02**	**2.93**	**99.00**	**2.47**	**-**	**7.89**

* To establish a limit that can be demonstrated on a more or less continuous basis, the groove forming UPTE will be subtracted from the modification allowable to create a limit that applies to the glazing area only.

Creating a limit for the glazing area only establishes a limit that can be demonstrated easily and effectively. After eliminating the groove forming UPTE, the new estimated VOC allowable rate is determined to be 15.75 tons per year.

16.45 tons VOC/yr - (Groove Forming Emissions) = (Glaze Area Allowable Emissions)

16.45 tons VOC/yr - 0.70 tons VOC/yr = 15.75 tons VOC/yr

The source after the modification still will not be a PSD or Title V major stationary source because none of the criteria pollutants will exceed the applicable level of 100 tons/yr and the single and combined HAP emissions will not exceed the respective applicable levels of 10 and 25 tons/yr.

Federal Rule Applicability

(a) New Source Performance Standards (NSPS):

There are no New Source Performance Standards (326 IAC 12 and 40 CFR Part 60) that apply to the proposed equipment.

(b) National Emission Standards for Hazardous Air Pollutants (NESHAPs):

There are no National Emission Standards for Hazardous Air Pollutants (326 IAC 14 and 20 and 40 CFR Parts 61 and 63) that apply to this proposed equipment.

State Rule Applicability

(a) Entire State Rule Applicability:

(1) 326 IAC 1-6-3 (Preventive Maintenance Plan):

The proposed source is still required to have a preventive maintenance plan for the emission units and control devices of the source.

(2) 326 IAC 2-4.1 (HAP Major Sources):

This source is still not subject to the requirements of 326 IAC 2-4.1 because the single and combined hazardous air pollutant (HAP) PTE are still less than their respective applicable levels of 10 and 25 tons per year.

(3) 326 IAC 2-6 (Emission Reporting):

This source is still not subject to 326 IAC 2-6 (Emission Reporting), because the source VOC PTE after the proposed modification is still less than the applicable level of 100 tons per year.

(4) 326 IAC 5-1-2 (Opacity Limitations):

Opacity shall not exceed an average of 40% in any one 6 minute averaging period. Opacity shall not exceed 60% for more than a cumulative total of fifteen minutes.

(b) Individual Unit Rules:

(1) 326 IAC 6-3, Door Groove Forming System:

Pursuant to 326 IAC 6-3-2(d), the particulate matter (PM) emissions from the door groove forming system based on a process weight rate of 546 pounds per hour shall be limited to 1.71 lb/hr.

$E = 4.10 * P^{0.67}$

$= 4.10 * (0.27)^{0.67}$

$= 1.71$ lb/hr

where: E = rate of emission in pounds per hour,
P = process weight in tons per hour (0.27 tons/hr)

4.16 tons PM/yr * 2000 lb PM/ton PM * 1/8760 yr/hr = 0.95 lb/hr

Based on the estimated PM UPTE of 4.16 tons/yr, the hourly PM emissions from the door groove forming system is estimated to be 0.95 lb/hr which is less than the 326 IAC 6-3 limit of 1.71 lb/hr.

Thus. Compliance is determined to be achieved.

(2) 326 IAC 6-3, Glaze Application Area:

Since the glaze application area is a surface coating process, the proposed glaze area would be subject to the requirements of 326 IAC 6-3-2(c). However, the glaze that is applied is applied using caulking guns which are determined to meet the definition of a flow coater. The definition is taken from 326 IAC 20-25-2(20)(A).

Pursuant to 326 IAC 6-3-1(b)(7), surface coating processes which apply the coatings via flow coating are exempt from the requirements of 326 IAC 6-3.

Thus, the glaze application area is determined to be exempt from the requirements of 326 IAC 6-3.

(3) 326 IAC 8-1-6, Door Groove Forming System:

Although there are no other Article 8 rules that apply to the proposed door groove forming system, the requirements of 326 IAC 8-1-6 do not apply because the process UPTE, 0.70 tons VOC/yr are less than the applicable level of 25 tons/yr.

(4) 326 IAC 8-1-6, Glaze Application Area:

Although there are no other Article 8 rules that apply to the proposed glaze application area, the requirements of 326 IAC 8-1-6 do not apply because the process UPTE, 16.94 tons VOC/yr, are less than the applicable level of 25 tons/yr.

Changes to the Permit

The following lists the changes to the existing permit that are necessary to incorporate the proposed modification. All language removed from the permit is struck-out and all added information is indicated in bold type.

(1) Condition A.1:

Condition A.1 shall be revised as follows to add fiberglass door manufacturing to the source type description.

A.1 General Information [326 IAC 2-8-3(b)]
The Permittee owns and operates an insulated **fiberglass and** steel door manufacturing facility.
.....

(2) Condition A.2:

Condition A.2 shall be revised as follows to add the proposed fiberglass door manufacturing line.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]
.....

(g) One (1) fiberglass door assembly operation, with a maximum design production rate of 175 doors per hour, including:

(1) One (1) fiberglass door groove forming system, identified as P008, forming grooves in the door cores via heat,
(2) The door adhesive roll coating application system identified in Part (c) of this condition,
(3) One (1) glaze application area, identified as P007, applying glaze to the door fiberglass skin, and
(4) The woodworking process identified in Part (e) of this condition.

(3) New Section D.4:

A new Section D.4 shall be added as follows to include al of the requirements that are applicable to the proposed modification.

Section D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:
One (1) fiberglass door assembly operation, with a maximum design production rate of 175 doors per hour, including:

(a) One (1) fiberglass door groove forming system, identified as P008, forming grooves in the door cores via heat,
(b) The door adhesive roll coating application system identified in Part (c) of Condition A.2,
(c) One (1) glaze application area, identified as P007, applying glaze to the door fiberglass skin, and
(d) The woodworking process identified in Part (e) of Condition A.2.
(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitation and Standards [326 IAC 2-8-4(1)]

D.4.1 Volatile Organic Compound (VOC) Usage Limit, Glaze Application Area [326 IAC 2-7]

The owner or operator shall limit the input VOC from the glaze application area to 15.75 tons per year per twelve (12)consecutive month period with compliance being determined at the end of each month. Compliance with this limit shall render the requirements of 326 IAC 2-7 not applicable in this case.

D.4.2 Particulate Matter (PM), Door Groove Forming System [326 IAC 6-3-2(e)]

The owner or operator shall limit the particulate matter (PM) from the door groove forming system to 1.71 lb/hr or less.

D.4.3 Particulate Matter (PM), Woodworking Process [326 IAC 6-3-2(e)]

The owner or operator shall limit the particulate matter (PM) from the woodworking process (P005) to 7.85 pounds per hour or less.

D.4.4 VOC Content Limit, Door Adhesive Roll Coating Application System [326 IAC 8-2-9]

(a) The owner or operator shall limit the volatile organic compound (VOC) content of coatings applied to metal door frames in P003 shall to 3.0 pounds of VOC per gallon of coating less water delivered to the applicator for all other coatings and coating application systems.

(b) Solvent sprayed from the application equipment during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

D.4.5 Woodworking Process Emission Control Operating Requirement

In order to comply with Condition D.4.3, the baghouse for PM control shall be in operation at all times that the woodworking operation (P005) is in operation.

D.4.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section C - Preventive Maintenance Plan, of this permit, is required for the emissions units and their control devices.

Compliance Determination Requirements

D.4.7 Compliance Determination, Volatile Organic Compounds (VOC)

To determine compliance with the VOC limit of Condition D.4.1, the owner or operator shall on a monthly basis:

(a) draft a list of all coatings, additives, and solvents used at the glaze application area that contain VOCs;

(b) determine the following form each coating, additive, and solvent listed in Part (a) of this Condition based on material properties and formulation data supplied by the coating manufacturer and the applicable material volatile organic compound usage for the most recent month:

(1) the amount and VOC content,
(2) a log of the dates of use, and
(3) the VOC emissions;

(c) the sum total coating, additive, and solvent VOC emissions;

(d) the sum total VOC emissions from the previous 11 months; and

(e) the 12 month rolling total VOC emissions.

The IDEM, OAQ, reserves the authority to require compliance determination using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4 and material volatile organic compound usage.

D.4.8 Testing Requirements

The owner or operator is not required to test any units listed in this section at this time. However, the IDEM, OAQ may require compliance testing at any specific time when deemed necessary to determine if the units listed in this section are in compliance with the limits and standards of Conditions D.4.1, D.4.2, and D.4.3. Said testing shall be determined by performance test(s) conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.4.9 Visible Emissions Notations, Woodworking Process

(a) Daily visible emission notations of the woodworking process stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

D.4.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouse used in conjunction with the woodworking process, at least once weekly when the woodworking process is in operation when venting to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouse shall be maintained within the range of 0.0 and 2.5 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge and Other Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.4.11 Monitoring Requirements, VOC Emission Limit

To demonstrate compliance with the VOC emission limit of Condition D.4.1, the owner or operator shall record the information determined in Condition D.4.7.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.4.12 Record Keeping Requirements

(a) To document compliance with the VOC limit of Condition D.4.1, the owner or operator shall maintain records of the information required in Condition D.4.11.

(b) To document compliance with the PM emission limit of Condition D.4.3, the owner or operator shall maintain records of:

(1) the daily visible emission notations required in Condition D.4.9, and
(2) the following operational parameters during normal operation when venting to the atmosphere:

(A) differential static pressure across the fabric as required in Condition D.4.10, and
(B) verification of cleaning cycle operation.

(c) To document compliance with the VOC content limit of Condition D.4.4, the owner or operator shall maintain records of the as applied VOC content of all coatings applied to metal door frames.

All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.4.13 Reporting Requirements

A quarterly summary of the information to document compliance with the VOC limit of Condition D.4.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

(4) New Report Form:

A new quarterly report form shall be revised to accommodate the new reporting requirements of Condition D.4.13.

(5) Changes to the Table of Contents:

The Table of Contents shall be revised to include the new Section D.4 requirements.

Conclusion

The source shall be operated according to the provisions of proposed Minor Permit Revision 113-16069-00047 and all applicable requirements of the other existing source approvals.